

CLAIMS

We claim:

1. In a network communications environment comprising at least a first and a second server and a client, a method for the first server to redirect traffic among the servers, the method comprising:
 - receiving a registration request from the client;
 - determining a server with which the client is assigned to work; and
 - if the client is assigned to work with the second server, then sending a request to the client redirecting the client to work with the second server.
2. The method of claim 1 wherein the first server is of a type selected from the group consisting of: a home server and a load distribution server.
3. The method of claim 1 wherein the second server is a real-time communications server.
4. The method of claim 1 wherein receiving a registration request comprises receiving the request over a Transport Layer Security connection.
5. The method of claim 4 wherein receiving a registration request comprises receiving a Session Initiation Protocol Register message.
6. The method of claim 1 wherein determining a server with which the client is assigned to work comprises checking an active directory for a home server entry for the client.
7. The method of claim 1 further comprising:
 - authenticating the client before determining a server with which the client is assigned to work.
8. The method of claim 7 wherein authenticating the client comprises using a New Technology LAN Manager authentication protocol.

9. The method of claim 7 wherein authenticating the client comprises using a Kerberos authentication protocol.
10. A computer-readable medium containing computer-executable instructions for performing a method for a first server to redirect traffic, the method comprising:
 - receiving a registration request from a client;
 - determining a server with which the client is assigned to work; and
 - if the client is assigned to work with a second server, then sending a request to the client redirecting the client to work with the second server.
11. In a network communications environment comprising at least a first and a second server and a client, a method for the first server to redirect traffic among the servers, the method comprising:
 - receiving a registration request from the client;
 - determining a server with which the client is assigned to work;
 - checking a number of Via headers in the registration request; and
 - if the number of Via headers is one, and if the client is assigned to work with the second server, then sending a request to the client redirecting the client to work with the second server;
 - else if the number of Via headers is greater than one, and if the client is assigned to work with the second server, then proxying the client's registration request to the second server.
12. The method of claim 11 wherein the first server is of a type selected from the group consisting of: a home server and a load distribution server.
13. The method of claim 11 wherein the second server is a real-time communications server.
14. The method of claim 11 wherein receiving a registration request comprises receiving the request over a Transport Layer Security connection.

15. The method of claim 14 wherein receiving a registration request comprises receiving a Session Initiation Protocol Register message.
16. The method of claim 11 wherein determining a server with which the client is assigned to work comprises checking an active directory for a home server entry for the client.
17. The method of claim 11 further comprising:
 - authenticating the client before determining a server with which the client is assigned to work.
18. The method of claim 17 wherein authenticating the client comprises using a New Technology LAN Manager authentication protocol.
19. The method of claim 17 wherein authenticating the client comprises using a Kerberos authentication protocol.
20. A computer-readable medium containing computer-executable instructions for performing a method for a first server to redirect traffic, the method comprising:
 - receiving a registration request from a client;
 - determining a server with which the client is assigned to work;
 - checking a number of Via headers in the registration request; and
 - if the number of Via headers is one, and if the client is assigned to work with a second server, then sending a request to the client redirecting the client to work with the second server;
 - else if the number of Via headers is greater than one, and if the client is assigned to work with the second server, then proxying the client's registration request to the second server.

21. In a network communications environment comprising at least a first and a second server and a client, a method for the first server to redirect traffic among the servers, the method comprising:
 - receiving a registration request from the client;
 - determining a server with which the client is assigned to work; and
 - if the client is assigned to work with the second server, then proxying the client's registration request to the second server.
22. The method of claim 21 wherein the first server is of a type selected from the group consisting of: a load distribution server and an internal edge server.
23. The method of claim 21 wherein the second server is a real-time communications server.
24. The method of claim 21 wherein receiving a registration request comprises receiving the request over a Transport Layer Security connection.
25. The method of claim 24 wherein receiving a registration request comprises receiving a Session Initiation Protocol Register message.
26. The method of claim 21 wherein determining a server with which the client is assigned to work comprises checking an active directory for a home server entry for the client.
27. The method of claim 21 further comprising:
 - authenticating the client before determining a server with which the client is assigned to work.
28. The method of claim 27 wherein authenticating the client comprises using a New Technology LAN Manager authentication protocol.
29. The method of claim 27 wherein authenticating the client comprises using a Kerberos authentication protocol.

30. A computer-readable medium containing computer-executable instructions for performing a method for a first server to redirect traffic, the method comprising:
 - receiving a registration request from the client;
 - determining a server with which the client is assigned to work; and
 - if the client is assigned to work with the second server, then proxying the client's registration request to the second server.
31. A computer-readable medium containing a client-to-home-server assignment data structure, the client-to-home-server assignment data structure comprising:
 - a first data field containing data identifying a client; and
 - a second data field containing data identifying a home server with which the client is assigned to work.
32. The client-to-home-server assignment data structure of claim 31 wherein the data in the second data field identifying a home server comprise a fully qualified domain name.
33. In a network communications environment, a system for redirecting traffic among servers, the system comprising:
 - a home server directory service;
 - a client configured for requesting an identification of a home server from the home server directory service, for receiving a home server identification in response, and for sending a registration request to the identified home server;
 - the identified home server comprising a client-to-home-server assignment data structure, the identified home server configured for receiving the registration request from the client, for querying the client-to-home-server assignment data structure to determine a home server with which the client is assigned to work, and for sending a request to the client redirecting the client to work with the home server with which the client is assigned to work; and
 - the home server with which the client is assigned to work.

34. In a network communications environment, a system for redirecting traffic among servers, the system comprising:
- a home server directory service;
 - a client configured for requesting an identification of a home server from the home server directory service, for receiving a home server identification in response, and for sending a registration request to the identified home server;
 - the identified home server comprising a client-to-home-server assignment data structure, the identified home server configured for receiving the registration request from the client, for querying the client-to-home-server assignment data structure to determine a home server with which the client is assigned to work, for checking a number of Via headers in the registration request, and, if the number of Via headers is one, for sending a request to the client redirecting the client to work with the home server with which the client is assigned to work, else if the number of Via headers is greater than one, for proxying the client's registration request to the home server with which the client is assigned to work; and
 - the home server with which the client is assigned to work.
35. In a network communications environment, a system for redirecting traffic among servers, the system comprising:
- a home server directory service;
 - a client configured for requesting an identification of a home server from the home server directory service, for receiving a home server identification in response, and for sending a registration request to the identified home server;
 - the identified home server comprising a client-to-home-server assignment data structure, the identified home server configured for receiving the registration request from the client, for querying the client-to-home-server assignment data structure to determine a home server with which the client is assigned to work, and for proxying the client's registration request to the home server with which the client is assigned to work; and
 - the home server with which the client is assigned to work.

36. In a network communications environment comprising a plurality of home servers and a client-to-home-server assignment data structure, a method for changing a distribution of traffic among the home servers, the method comprising:
- monitoring the distribution of traffic among the home servers;
 - determining that a change in the distribution of traffic could be beneficial;
 - modifying the client-to-home-server assignment data structure to reflect the change; and
 - invalidating subscriptions, if any, that are incompatible with the change.
37. The method of claim 36 wherein determining that a change in the distribution of traffic could be beneficial is based, at least in part, on an event selected from the group consisting of: a home server becomes overloaded, a home server becomes unavailable, and a home server becomes available.
38. A computer-readable medium containing computer-executable instructions for performing a method for changing a distribution of traffic among home servers in a network communications environment, the method comprising:
- monitoring the distribution of traffic among the home servers;
 - determining that a change in the distribution of traffic could be beneficial;
 - modifying a client-to-home-server assignment data structure to reflect the change;
- and
- invalidating subscriptions, if any, that are incompatible with the change.